

Amendments to the Claims

This corrected listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently amended) ~~Method~~ A method of preventing damage when writing information in a storage layer of a multi-layer optical storage medium ~~comprising two or more storage layers~~, the method comprising acts of:

~~positioning a write light beam in a radial displacement or an axial displacement with respect to the two or more storage layers;~~

monitoring a plurality of distinct input signals while focusing a write light beam in a focal spot at a target storage layer; ~~determining that a write~~ to detect an axial focus displacement event, has occurred only if an error on two or more of the plurality of distinct input signals indicating the axial focus ~~write displacement error signals indicate that a write displacement event has occurred, otherwise determining that a write displacement event has not occurred;~~ and

inhibiting the writing process in case of the axial focus ~~a write displacement event~~ occurrence.

2. (Currently amended) ~~Medium~~ A medium access device for preventing damage when, ~~capable of writing information in a storage layer of a multi-layer optical storage medium, comprising two or more storage layers;~~ the medium access device comprising:

~~a light beam generating means~~generator for generating a write light beam;

~~positioning means for positioning the write light beam in a radial displacement or an axial displacement with respect to the storage layers;~~

~~a write inhibit circuit~~focusing means for monitoring a plurality of distinct input signals while focusing the write light beam in a focal spot at a target storage layer to detect an axial focus displacement event; ~~write inhibit means for inhibiting a writing process only if an error on two or more write displacement error signals indicate that of the plurality of distinct input signals indicates the axial focus~~a write displacement event has occurred, wherein the write displacement error signals comprise at least two error signals derived from: a signal provided by a sensor that detects mechanical vibration or acceleration acting upon the medium access device; a focus coil voltage; a normalized focal signal; an axial focal displacement signal; an axial storage layer displacement signal; an axial focal displacement loop integrator accumulated error signal; an axial focal displacement error signal integrated with a predetermined time constant; a radial tracking displacement error signal; a radial tracking loop integrator accumulated error signal; a signal indicating access of an incorrect storage layer; a signal indicating a characteristic read data feature derived from an optical detector for receiving light reflected from the storage medium or a forward sense diode; and a forward sense diode reflected central aperture signal, wherein said at least two write displacement error signals may also include: first or higher order time derivatives of said error signals; said error signals are integrated with predetermined time constants; or two or more of said error signals are correlated with each other.

3. (Currently amended) The medium access device according to claim 2, further comprising a driver circuit for driving the light beam ~~generating means~~generator in accordance with a data signal representing data to be written, the driver circuit having a control input, wherein the write inhibit ~~means~~circuit have an output coupled to said control input of the driver circuit, the write inhibit circuit is ~~means being~~ designed to generate a command signal for the driver circuit to effectively inhibit the driver circuit in case of an axial focus ~~a write-displacement~~ event.

4. (Canceled)

5. (Currently amended) The access device according to claim 2, wherein the write inhibit ~~means~~circuit has at least three inputs for receiving at least three different input signals capable of indicating an axial focus ~~a write-displacement~~;

the write inhibit circuit is ~~means being~~ designed to monitor at least two of its input signals and to inhibit the writing process only if at least two of the input signals are indicative in a correlated way of the occurrence of an axial focus ~~a write-displacement~~ event.

6. (Currently amended) The medium access device according to claim 2, wherein the write inhibit circuit is ~~means being~~ designed to monitor an input signal, to calculate an axial focus displacement from the input signal, and to decide that the input signal is indicative of an axial focus ~~a write-displacement~~ event only if the calculated axial focus displacement

exceeds a predetermined displacement threshold.

7. (Currently amended) The medium access device according to claim 2, wherein the write inhibit circuit is~~means-being~~ designed to monitor an input signal, to monitor for the possible occurrence of a predefined characteristic feature of the input signal, and to decide that the input signal is indicative of an axial focus ~~a write-displacement~~ event only if such characteristic feature occurs.

8. (Currently amended) The medium access device according to claim 2, wherein the write inhibit circuit is~~means-being~~ designed to monitor at least one of its input signals, to determine the speed with which said at least one of its input signals changes in time, and to decide that the input signal indicates that an axial focus ~~a write-displacement~~ event is about to occur on the basis of an evaluation of such changes.

9. (Currently amended) The medium access device according to claim 8, wherein the write inhibit circuit is ~~means-being~~ designed to inhibit the writing process if a time-derivative of said at least one of its input signals predicts an axial focus ~~a write-displacement~~ event.

10. (Currently amended) The medium access device according to claim 1, further comprising at least one vibration/acceleration sensor;

the write inhibit circuit is~~means-being~~ designed to monitor at least an output signal from the at least one of a vibration sensor and an acceleration sensor.

11. (Currently amended) The medium access device according to claim 1, further comprising at least one optical detector for receiving light reflected from the storage medium;

the write inhibit circuit is~~means being~~ designed to monitor at least one signal derived from at least one detector output signal.

12. (Currently amended) The medium access device according to claim 11, wherein the write inhibit circuit is~~means being~~ designed to monitor at least one of a signal corresponding to the reflected central aperture signal obtained from a forward-sense diode of the sensor, or to monitor at least a signal corresponding to the focal error signal, or to monitor at least a signal corresponding to the focal error signal integrated with a predetermined time constant.

13. (Currently amended) The medium access device according to claim 2, wherein the multi-layer optical storage medium is selected from~~capable of handling~~ at least one of DVD-discs and BD discs.

14. (Currently amended) A medium~~Medium-access device~~ for preventing damage when,~~capable of writing~~ information in a storage layer of a multi-layer optical storage medium ~~comprising two or more storage layers,~~ the medium access device comprising:

a light beam generating means~~generator~~ for generating a write light beam;

~~_____ positioning means for positioning the write light beam in a radial displacement or an axial displacement with respect to the storage layers;~~

~~a write inhibit circuit~~focusing means for monitoring a plurality of distinct input signals while focusing the write light beam in a focal spot at a target storage layer to detect an axial focus displacement event; and ~~_____ write inhibit means for inhibiting a writing process in case of the axial focus a write-displacement event, an error on two or more of the plurality of distinct input signals indicates the axial focus displacement event,~~

~~_____ wherein the write inhibit circuit means is designed to monitor monitors~~ at least two input signals of the plurality of distinct input signals capable of

indicating an axial focus a write-displacement, to determine

determining a speed with which said at least two input signals change in time, and to decide

deciding that at least two of the input signals indicate that an axial focus a write displacement event is about to occur on the basis of an evaluation of such change.

15. (Currently amended) The medium access device according to claim 14, wherein the write inhibit circuit is ~~means being designed to inhibit the writing process if a time-derivative of said at least one input signal predicts an axial focus a write-displacement event.~~

16. (Previously presented) The medium access device according to claim 15, wherein the time-derivative is a first order time derivative.

17. (Previously presented) The medium access device according to claim 15, wherein the time-derivative is higher than a first order time derivative.

18. (Currently amended) A medium ~~Medium-access device for preventing damage when,~~
~~capable of~~ writing information in a storage layer of a multi-layer optical storage medium
~~comprising two or more storage layers;~~ the medium access device comprising:

a light beam generating means~~generator~~ for generating a write light beam;

~~positioning means for positioning the write light beam in a radial displacement or an~~
~~axial displacement with respect to the storage layers;~~

a write inhibit circuit ~~focusing means for~~ monitoring a plurality of distinct input signals
while focusing the write light beam in a focal spot at a target storage layer to detect an axial
focus displacement event, ; ~~write inhibit means for inhibiting a writing process only if an~~
~~error on two or more write displacement error signals indicate that a write of the plurality of~~
distinct input signals indicates the axial focus displacement event has occurred,

wherein the write inhibit circuit~~means~~ is designed to

monitor at least two of its input signals, to

determine the speed with which said at least two of its input signals change in time,

and to

decide that the input signals indicate that an axial focus ~~a write displacement event~~
is about to occur on the basis of an evaluation of such change.

19. (Currently amended) The medium access device according to claim 18, wherein the

write inhibit circuit ~~is means being~~ designed to inhibit the writing process if a time-derivative of said at least one of its input signals predicts an axial focus ~~a write~~-displacement event.

20. (Currently amended) The method of ~~writing information in a storage layer of a multi-layer optical storage medium according to claim 1~~, wherein the plurality of signals are selected from ~~write displacement error signals comprise at least two error signals derived from:~~ a signal provided by a sensor that detects mechanical vibration or acceleration acting upon the medium access device; a focus coil voltage; a normalized focal signal; an axial focal displacement signal; an axial storage layer displacement signal; an axial focal displacement loop integrator accumulated error signal; an axial focal displacement error signal integrated with a predetermined time constant; a radial tracking displacement error signal; a radial tracking loop integrator accumulated error signal; a signal indicating access of an incorrect storage layer; a signal indicating a characteristic read data feature derived from an optical detector for receiving light reflected from the storage medium or a forward-sense diode; and a forward-sense diode reflected central aperture signal₁; ~~wherein said at least two write displacement error signals may also include:~~ first or higher order time derivatives of said error signals; said error signals are integrated with predetermined time constants; ~~or~~ and two or more of said error signals are correlated with each other.

21. (Currently amended) The medium access device according to claim 2, wherein the plurality of signals are selected from ~~write displacement error signals comprise at least two of write displacement error signals comprise at least two error signals derived from:~~ a

signal provided by a sensor that detects mechanical vibration or acceleration acting upon the medium access device; a focus coil voltage; a normalized focal signal; an axial focal displacement signal; an axial storage layer displacement signal; an axial focal displacement loop integrator accumulated error signal; an axial focal displacement error signal integrated with a predetermined time constant; a radial tracking displacement error signal; a radial tracking loop integrator accumulated error signal; a signal indicating access of an incorrect storage layer; a signal indicating a characteristic read data feature derived from an optical detector for receiving light reflected from the storage medium or a forward-sense diode; and a forward-sense diode reflected central aperture signal; ~~wherein said at least two write displacement error signals may also include:~~ first or higher order time derivatives of said error signals; said error signals are integrated with predetermined time constants; ~~or~~ and two or more of said error signals ~~are~~ correlated with each other.